

WHAT IS CLAIMED IS:

1. An image display device comprising:

an image conversion circuit converting a pixel number of an input image in accordance with the pixel number of a display unit and outputting a converted image;

a clock generator generating a panel clock signal used to display the converted image;

a first calculation circuit calculating an ideal cycle of an output horizontal synchronizing signal used to display the converted image, based on a vertical conversion ratio of the pixel number and a cycle of a horizontal synchronizing signal of the input image;

a second calculation circuit obtaining a cycle information of the output horizontal synchronizing signal, based on the ideal cycle of the horizontal synchronizing signal and the panel clock signal; and

a horizontal synchronizing signal generator for generating the output horizontal synchronizing signal, based on the cycle information.

2. An image display method, comprising steps of:

converting a pixel number of an input image in accordance with the pixel number of a display unit and outputting converted image;

calculating an ideal cycle of an output horizontal synchronizing signal used to display the converted image,

based on a vertical conversion ratio of the input image and a horizontal synchronizing signal of the input image;

obtaining a cycle information of the output horizontal synchronizing signal, based on the ideal cycle of the output horizontal synchronizing signal and a panel clock signal used to display the converted image; and

generating the output horizontal synchronizing signal, based on the cycle information.

3. An image display device, comprising:

a first clock generator for generating a first clock;

a second clock generator for generating a second clock;

a memory configured so as to accumulate image data sampled from input image signals based on the first clock, and read out the accumulated image data using the second clock;

a controller for generating a control signal for controlling a cycle of an output horizontal synchronizing signal used for reading out the accumulated image data from the memory, according to image size information of the input image signals, cycle information of the input horizontal synchronizing signals, and cycle information of the second clock; and

a synchronizing signal generator for outputting the output horizontal synchronizing signal based on the control signal.

4. An image display method, comprising:

generating a first clock;

generating a second clock;

accumulating image data sampled from input image signals based on the first clock, and reading out the accumulated image data using the second clock;

generating a control signal for controlling a cycle of an output horizontal synchronizing signal used for reading out the accumulated image data, according to image size information of the input image signals, cycle information of the input horizontal synchronizing signals, and cycle information of the second clock; and

outputting the output horizontal synchronizing signal based on the control signal.

5. A device for converting images, comprising:

an output synchronization signal generation module configured to generate output vertical and horizontal synchronization signals based on an input horizontal synchronization signal and an input vertical synchronization signal; and

an image conversion module configured to generate an output image signal based on an input image signal and the output vertical and horizontal synchronization signals.

6. A method for converting images, comprising:

generating output vertical and horizontal synchronization signals based on an input horizontal synchronization signal and an input vertical synchronization signal; and

generating an output image signal based on an input image signal and the output vertical and horizontal synchronization signals.